

# 規 格 承 認 書

## SPECIFICATION FOR APPROVAL

備註 REMARKS : \_\_\_\_\_

名稱  
CUSTOMER \_\_\_\_\_ SK2131

料號  
PART NUMBER \_\_\_\_\_ SK21G-1200100U-1.35

產品類別  
PRODUCT \_\_\_\_\_ 申源活配器

設計編號  
DESIGNED NO SK-W2014082008 機種型號  
MODEL NO SK21G-1200100U

勝特力材料 886-3-5753170  
胜特力电子(上海) 86-21-34970699  
胜特力电子(深圳) 86-755-83298787

[Http://www.100y.com.tw](http://www.100y.com.tw)

# 索引 (Index)

1. 描述 (Description) .....	4
2. 電氣規格 (Electrical Specification ) .....	4
3. 保護功能 (Protection) .....	5
4. 可靠性 (Reliability) .....	5
5. 環境特性 (Environment) .....	6
6. 安全及 EMI 要求 (Safety and EMI Requirement) .....	7
7. 測試設備清單 (Test Equipment List) .....	8
8. 結構參數 (Mechanical Requirement) .....	8
9. 機械規格 (Mechanical Specifications) .....	9
10. 重量 (Weight) .....	10
11. 銘牌圖 (Label Drawing) .....	10
12. 包裝圖 (Package Drawing) .....	11

MODEL NO.:

SK21G-1200100U

DESIGNED NO.:

SK-W2014082008

## 1. 描述 ( Description )

本規格書適應於 SK21G-1200100U 型號的開關電源.

This specification apply to the switching power whose model no. is SK21G-1200100U

## 2. 電氣規格 ( Electrical Specification )

### 2.1 輸入 (INPUT)

輸入電壓範圍 (Input voltage range)	100Vac - 240Vac
額定輸入電壓範圍 (Rated voltage range)	100Vac - 240Vac
適用頻率範圍 (Input frequency range)	47Hz-63Hz
額定頻率 (Rated input frequency)	50Hz/60Hz
輸入電流 (Input current)	0.4Amax. at full load
浪湧電流【Inrush current(cold start)】	30Atyp peak, 220Vac Input

### 2.2 輸出 (OUTPUT)

#### 2.2.1 額定輸出 (Rated Output)

輸出電壓 Output Voltage (Vdc)	輸出電壓範圍 Output Voltage Limit (Vdc)	紋波&雜訊 Output Ripple & Noise (mV)	最大輸出電流 Output Current (mA)
12	11.4-12.6	≤120	1000

注 (Notes): 在測試紋波時示波器頻寬調至 20MHz , 示波器的測試端並聯一粒 10uF 的電解電容和一粒 0.1uF 的瓷片電容。( Ripple Voltage is measured with oscilloscope with bandwidth 20MHz . A 10uF E-cap and 0.1uF ceramic-cap shall be connected to the connector in parallel. )

#### 2.2.2 輸出超調 (DC Output Overshoot At Turn On & Turn Off)

輸出電壓 Output Voltage (V)	輸出超調電壓比例 Proportion of the output voltage overshoot	
	開通 Turn on	關斷 Turn off
12V	5%	5%

注 (Note): 在全部電流範圍內進行測試 (All of dc output current from Min. to Max.. )

#### 2.2.3 負載特性,調整率 (Combined Load/Line Regulation)

電壓 Voltage	最小負載 Min. Load	額定負載 Rated. Load	線性調整 Line Regulation	負載調整 Load Regulation
12Vdc	0A	1A	±3%	±5%

MODEL NO.:

SK21G-1200100U

DESIGNED NO.:

SK-W2014082008

#### 2.2.5 啟動延遲時間 (Turn on delay time) :

當輸入 115Vac 和輸出最大負載時, 最大啟動時間為 2S.

2Second Max. at 115Vac input and output Max. load.

#### 2.2.6 上升時間 (Rise time) :

當輸入 115Vac 和輸出最大負載時最大時間為 40mS.

40mS Max. at 115Vac input and output Max load.

#### 2.2.7 保持時間 (Hold up time) :

當輸入 115Vac 和輸出最大負載時, 最小保持時間為 5mS.

5mS Min. at 115Vac input and output Max. Load.

#### 2.2.8 效率 (Efficiency) :

當 230Vac 輸入時, 輸出在 25%, 50%, 75% 及滿載情況下, 平均效率需達到 69.72% (開機 30 分鐘後測試).

Average efficiency reach 69.72% minimum at 25%, 50%, 75% & 100% of full-loading and 230Vac input  
(After warm up 30 minutes).

空載輸入功率≤0.3W.

No-load input power≤0.3W

### 3. 保護功能 (Protection)

#### 3.1 短路電路保護 (Short circuit protection) :

該電源供給器在短路解除時能正常工作恢復.

The power supply will be auto recovered after short circuit faults remove.

#### 3.2 過流保護 (Over current Protection) :

過流故障排除後, 電源將自動恢復正常工作.

The power supply will be auto recovered after over current faults remove.

### 4. 可靠性要求 (Reliability Requirements)

#### 4.1. 老化 (Burn-in)

產品至少要在 40°C±5°C 的環境及 80%額定負載條件下煲機 2-4 小時

The power supply shall be burn-in for 2-4 Hours under normal input and 80% rated load at 40°C±5°C

#### 4.2. 平均間隔故障時間估算 (MTBF Qualification)

平均間隔故障時間: 至少 50,000 小時, 25°C 環境及額定輸入與滿載條件下

The MTBF shall be at least 50,000hours at 25°C, Full load and nominal input condition

MODEL NO.:	SK21G-1200100U	DESIGNED NO.:	SK-W2014082008
------------	----------------	---------------	----------------

## 5. 環境要求 (Environment Requirement)

### 5.1 工作溫度 (Operating Temperature) :

0°C~40°C, 滿載, 正常工作

0°C to 40°C, Full load, Normal operation.

### 5.2 儲藏溫度 (Storage Temperature) :

-40°C to 85°C 【帶外殼 (With package)】

### 5.3 工作濕度 (Relative Humidity) :

5% (0°C) ~95% (40°C), 72 小時, 滿載, 正常工作.

5% (0°C) ~95% (40°C) RH, 72Hrs, Full load, Normal operating.

### 5.4 振動 (Vibration) :

#### 5.4.1. 測試標準: 國際電工電子委員會

Operating: IEC 721-3-3 3M3

5~9Hz, A=1.5mm

9~200Hz, 加速度 Acceleration 5m / S<sup>2</sup>

#### 5.4.2. 運輸 (Transportation) :

IEC 721-3-2 2M2

5~9Hz, A=3.5mm

9~200Hz, 加速度 Acceleration=5m / S<sup>2</sup>

200~500Hz, 加速度 Acceleration=15m / S<sup>2</sup>

#### 5.4.3. 軸向振動 (Axes, 10 cycles per axis):

在測試過程中不能出現永久性的損壞.

No permanent damage may occur during testing.

在電源開啟和關閉後, 樣機能夠恢復到最初條件.

The product can restore to its original situation after power off / on.

### 5.5 跌落試驗 (Dropping Packed) :

一個角, 三個棱, 六個面.

1 corner, 3 edges, and 6 surfaces

高度 76cm

Height: 76cm.

MODEL NO.:

SK21G-1200100U

DESIGNED NO.:

SK-W2014082008

## 6. 安全及 EMI 要求 ( Safety and EMI Requirement ) :

### 6.1 安全:符合標準 (Safety: accord with):

certificate	國家/Country	standards
<input type="checkbox"/> UL/CUL	美國/USA	UL60065
<input checked="" type="checkbox"/> UL/CUL	美國/USA	UL60950
<input type="checkbox"/> TUV/GS	歐洲/Europe	EN60065
<input type="checkbox"/> TUV/GS	歐洲/Europe	EN60950
<input type="checkbox"/> FCC	美國/USA	Class B
<input type="checkbox"/> CE	歐洲/Europe	EN60065
<input checked="" type="checkbox"/> CE	歐洲/Europe	EN60950
<input type="checkbox"/> MEPS	澳洲/Australia	AS/NZS 4665
<input type="checkbox"/> SAA	澳洲/Australia	AS/NZS 60065
<input type="checkbox"/> SAA	澳洲/Australia	AS/NZS 60950
<input type="checkbox"/> CCC	中國/China	GB8898
<input checked="" type="checkbox"/> CCC	中國/China	GB4943
<input type="checkbox"/> PSE	日本/Japan	J60950 (H22)
<input type="checkbox"/> CB	歐洲/Europe	IEC60065
<input type="checkbox"/> CB	歐洲/Europe	IEC60950
<input type="checkbox"/> C-TICK	澳洲/Australia	AS/NZS CISPR13:2004
<input type="checkbox"/> EK/KC	韓國/Korea	K60065
<input type="checkbox"/> EK/KC	韓國/Korea	K60950

### 6.2 EMI 標準 (EMI STANDARD):

Meets the Limits /測試符合

- <1>. Fcc class B rules
- <2>. EN55022 class B rules
- <3>. IC class B ICES-003.

### 6.3 絶緣強度 (Dielectric Strength Testing):

絕緣強度滿足下表的要求，100% 線上產品執行此項測試，並每一項目至少保持 5 S 時間，無任何故障。

Hi-pot test shall be met the table 5 requirements, an item listing this test as a 100% production test must be performed and be maintained at that level for a minimum of 5 seconds without failure.

項目 (ITEM)	測試規格 (SPECIFICATION)	結果 (REMARK)
輸入—輸出 Primary to Secondary	3000Vac/5mA/5s	無飛弧 No arcing
輸入—地 Primary to P.G		無擊穿 No broken
輸出—地 Secondary to P.G		

MODEL NO.:

SK21G-1200100U

DESIGNED NO.:

SK-W2014082008

## 7. 測試設備清單 (Test Equipment List)

項目	設備名稱	製造	型號
1	變頻電源 (AC power source)	Chroma	6120
2	示波器 (Oscilloscope)	Tektronix	TDS1002B
3	電子負載儀 (Electronic load)	TET	T3515
4	萬用表 (Multimeter)	FLUCK	87 III
5	功率計 (Dynamometer)	Chroma	2100
6	溫度錶 (Thermograph)	LUTRON	TW-902C
7	插頭引線彎折試驗機 (Plug lead bend test machine)	聯欣	LX-817
8	鹽霧試驗機 (Salt spraying tester)	聯欣	LX-8827B
9	震動台 (Vibration table)	精技實驗	FZD-25
10	跌落測試台 (Drop test bed)	自製	
11	數顯卡尺 (Digimatic caliper)	上海量具	0-150mm

## 8. 結構參數 (MECHANICAL REQUIREMENT) :

### 8.1 外殼 (Enclosure) :

外殼尺寸: L62.4x W26.5x H39.8mm;

The power supply size: L62.4x W26.5x H39.8mm

### 8.2 輸入線 (Input Connector) :

2 Pin 插腳

Two pin input plug.

### 8.3 產品外觀圖片 (Photograph of the product):

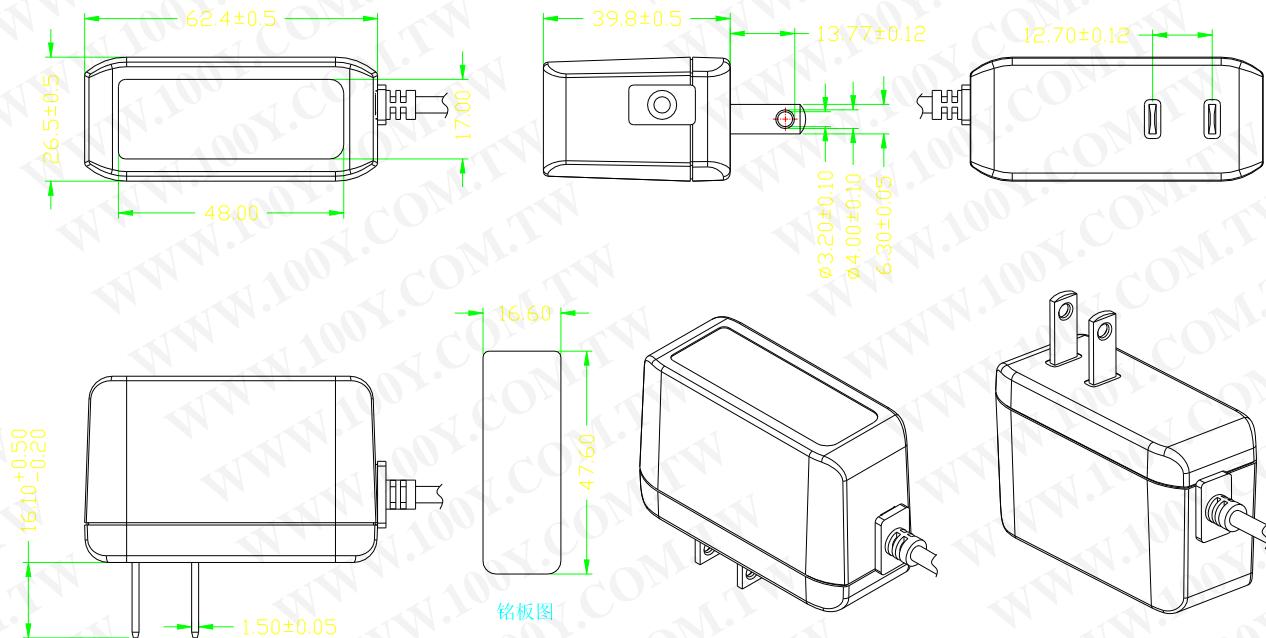


MODEL NO.:	SK21G-1200100U	DESIGNED NO.:	SK-W2014082008
------------	----------------	---------------	----------------

## 9. 機械規格 (MECHANICAL SPECIFICATIONS)

### 9.1 物理尺寸 (Dimension):

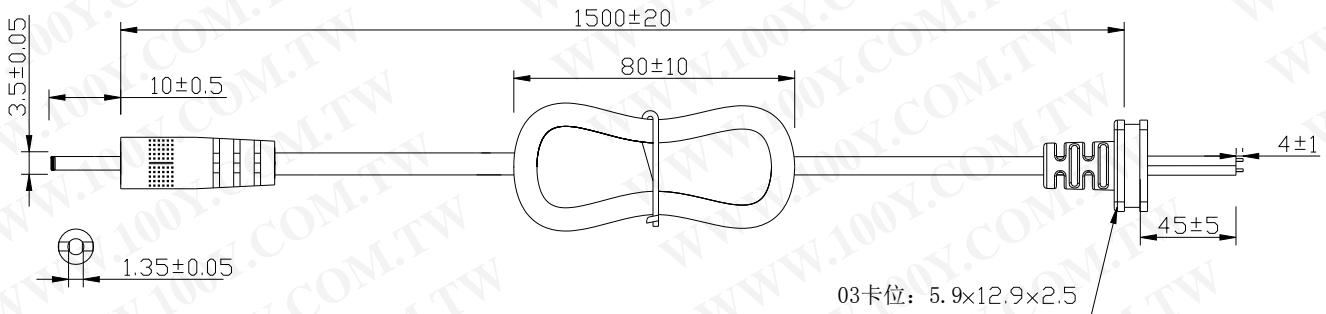
62.4mm X 26.5mm X 39.8 mm (L\* W \* H , 見圖).



### 9.2 DC 線尺寸圖 (DC Output Cord Drawing):

(見圖). 24A/2464/1.5M

DC 頭 : 3.5\*1.35\*10 直頭音叉



MODEL NO.:	SK21G-1200100U	DESIGNED NO.:	SK-W2014082008
------------	----------------	---------------	----------------

### 9.3 極性 (Polarity)

### 9.3.1. 極性 (Polarity):

內正外負

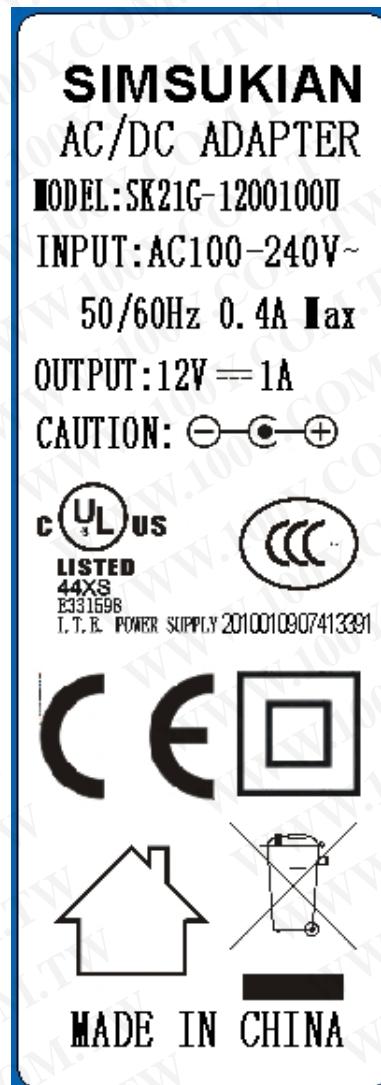


### 10. 重量 (Weight)

電源的重量大約為 80 g. The weight of the power supply shall be about 80 g.

### 11. 銘牌圖 (Label Drawing)

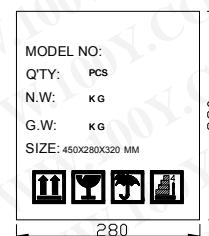
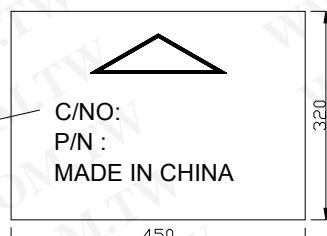
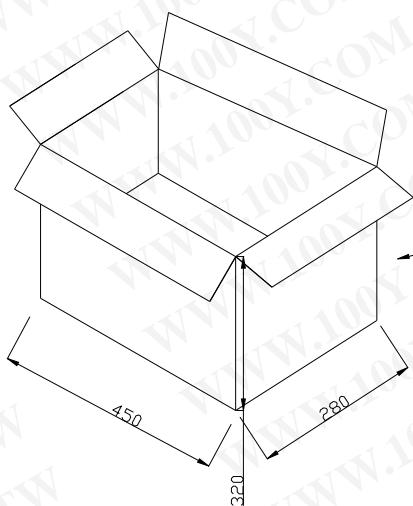
銀底黑字 (材質: 哑銀龍) 尺寸 16.6mmX47.6mm



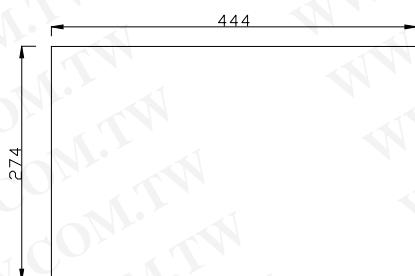
MODEL NO.:	SK21G-1200100U	DESIGNED NO.:	SK-W2014082008
------------	----------------	---------------	----------------

## 12 包裝圖 (Package Drawing)

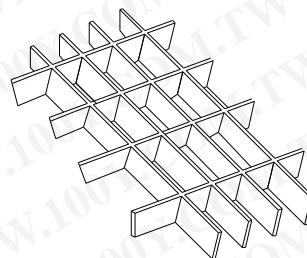
100PCS/箱



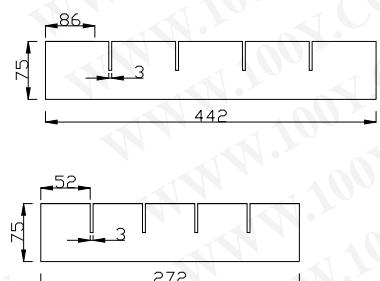
平板:



刀卡组合:



刀卡:



### 包装说明 (PACKING) :

若客户未提出包装方式时，均使用本公司之包装方式。

Our own packing style will be adopted if no special packing required .

a 内包装/inner package

PE 袋/PE bag

b 外包装/ Outer package

纸箱/ paper-box.

尺寸: 450×280×320mm ,5×5刀卡加平板5张274X444mm

c 外包装箱标识/ Outer package notes include the information

客户、订单号、品名、数量、日期等信息

Customer Name, LOT Number, Model No., Date, and so on.

MODEL NO.:

SK21G-1200100U

DESIGNED NO.:

SK-W2014082008